A syringe pump including a syringe including a plunger that slides in a body which has a discharge port, a driving mechanism coupled to the syringe, including a cylinder in which a piston mounted on a shaft slides, and a biasing device operative to apply an urging force on the piston to drive the piston distally in the cylinder, and a safety catch that initially prevents the biasing device from moving the piston, the safety catch being removable to permit the biasing device to move the piston.